Society Proceedings.

NEW YORK NEUROLOGICAL SOCIETY.

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The President, Dr. Pearce Bailey, in the chair.

Paradoxical Pseudo-Hypertrophy in Infantile Cerebral Hemiplegia.—Dr. L. Pierce Clark presented a boy of ten years with a family history of epilepsy, insanity, alcoholism, rheumatism and tuberculosis. The personal history was good, except that when five years old he had suffered from a severe attack of smallpox. This had been followed by infantile cerebral hemiplegia, the convulsions being general and lasting for hours. A left hemiplegia was noticed the day after the convulsion. Three months after the initial stroke he had status hemiplegicus unilateralis attended by high fever. There were 47 grand mal fits in four hours. At the time of presentation there were from three to five epileptic attacks daily with an epigastric aura. Hypertrophy of the calf on the paralyzed side was first noticed three years ago, but the left arm was moderately atrophic. The ankle also showed bony hypertrophy, a still rarer condition.

A Case of Myoclonus.—Dr. Clark presented a Jewish boy of eleven years having a negative family and personal history. Two years ago, without known cause a spasm developed in the left biceps, triceps, pectoralis major, latissimus dorsi and sternomastoid muscles, and in a few weeks the same muscles on the right side became involved. The spasm was clonic in character and occurred from twenty to forty times a minute, with never more than a few minutes of entire freedom from the spasm. In a few months the muscles of the pelvic girdle became affected, particularly the glutei, quadriceps and sartorius. Arsenic had been of no avail in suppressing the spasms. No spasms had been observed in the fingers or toes. The musculature was good, and there was no atrophy or sensory change. All the reflexes were normal. The diagnosis of myoclonus was made on account of the bilateral, clonic, lightning-like character of the spasms of the proximal muscles.

A Case of Multiple Neuritis with Intact Reflexes.—Dr. Clark also presented this case, a child of five years, an imbecile and possibly epileptic. The boy had apparently had an attack of meningitis last July. He now presented the high-stepping gait and the exaggeration of all the reflexes. There was a marked diminution in the response to the faradic current. At present, he was in the recovery stage of multiple neuritis, apparently of lead origin.

Dr. J. Ramsey Hunt asked if in the case of myotonia there were a history of fright; also if the term, myoclonus, was used in the generic sense. The case had much in common with Henoch's chorea.

Dr. W. M. Leszynsky asked on what basis it was concluded that the multiple neuritis was due to lead. The distribution corresponded more to that of alcohol, and from the fact that the child had been taking beer, the probability was that it was an alcoholic neuritis.

Dr. Clark said that he looked upon the case of myoclonus as of the Friedreich type. The history of fright usually had to be taken with a good deal of allowance. He did not think it could be of the choreic type referred to, because muscular atrophies occurred and ran a rapid course. The condition was not improved by the usual treatment for chorea. The case of multiple neuritis was first thought to be one of alcoholic origin, and an effort was made to obtain such a history, but the history of beer drinking was not at all satisfactory or definite. The child had been playing around a cellar and had freely dabbled in lead paint a short time before the illness.

Dr. Pearce Bailey thought the sharp, shock-like electrical contractions of the muscles and the peculiar sound emitted by the boy should lead one to think of the type of electrical chorea.

A Case of Myokymia.—Dr. R. M. Daly presented a man of twenty-eight, a printer by occupation. There was no history of lead colic, and no family history bearing upon the case. For years he had engaged freely in athletic sports. About one year before coming under observation, after having walked for eleven hours, the calf muscles began to twitch. When first seen, last October, his general condition was good, as were also his habits. His gait and station were normal, and there was no paralysis of the muscles. Facial innervation was more marked on the right side. There was a fibrillary twitching of all the muscles of the legs and of the posterior muscles of the thigh. Sometimes the same bundle of muscular fibers would contract several times in succession. A blow upon the muscles brought out the contractions well. The electrical contractions were negative. There had been no evidence of atrophy during the time the patient had been under observation. There was no disturbance of the special senses, and the superficial reflexes were undisturbed. The knee-jerk was increased; there was no clonus or Babinski reflex. He had received increasing doses of strychnine and arsenic, and had received galvanic and X-ray treatment, but all without benefit. Quite recently he had been placed on gelsemium, and the twitchings had diminished somewhat.

Dr. C. L. Dana said that while the condition was not important he thought it was of interest to recognize it as a distinct symptom. Fibrillary twitchings were common enough in states of exhaustion of any kind. Myokymia occurred in neurasthenic states, and sometimes also in alcoholics.

Non-Septic Cerebritis.—Dr. Harlow Brooks read this paper, reporting a case. He said that these cases had not been frequently reported in recent medical literature, and hence, the case he had seen seemed to be worthy of reporting. The disease was not so very rare, but it was the exception for it to be recognized because of our scanty knowledge regarding it. Microscopical examination in a considerable number of instances had been found to be the only certain method of recognizing the condition. A considerable number of cases recovered wholly or partly. The cases going on to recovery were apt to be set down as examples of hysteria. Metabolic poisons and those toxins produced by the growth or action of bacteria should be just as competent to produce inflammation as injuries. In all inflammatory diseases the question of the occurrence of hemorrhages depended upon the severity of the inflammation and the situation of the lesions. He had no sympathy with those who insisted that an inflammation was necessarily dependent upon bacteria or their products. Acute encephalitis might terminate in death if the disease involved parts of the encephalon essential to life. When complete recovery ensued it was probable that the inflammatory products were almost completely absorbed. When there was only partial absorption there would be more or less impairment of the functions of the brain. Such a condition not infrequently occurred in alcoholics or after severe attacks of insolation. The following case was then reported: The patient was a girl of nineteen years, by occupation a domestic. There was a history of headaches and bilious attacks. She was naturally rather dull. On the night previous to her entrance to the hospital she appeared to be as well as usual, but was found unconscious the next morning, and was thought to be suffering from poisoning. On admission, she was unconscious, and the respirations were stertorous. In response to pin-pricks the hands and feet were withdrawn. The pupils were moderately dilated and reacted somewhat irregularly to light. She was unable to swallow and did not respond to the usual forms of stimulation. Kernig's sign was absent. On October 21, or two days later, the urine was normal except for a trace of albumin. The temperature varied between 100° and 101°F. Two days later some casts were found in the urine. On October 25, a bedsore appeared to be forming over the sacrum, and the temperature was rising. There was a leucocytosis of 14,000. On October 27 the patient took two ounces of water by mouth, but with this exception all nourishment had been by rectum. On October 30 she spoke once, as she had done on the previous day. The bedsore was getting rapidly worse. On November 1 she spoke rationally and complained of pains all over. Some nourishment had been taken by mouth. She was very uneasy during the night. On November 6 the temperature varied between 102° and 105° and the pulse between 140 and 160. She died with a temperature of 106°F.

Several blood cultures were taken before death, and these proved negative. An examination of the eyes was also negative. The necropsy was begun two hours after death, and was conducted by Dr. Janeway. Nowhere in the body was there any inflammation except, of course, in the bedsores. Slight cerebrospinal meningitis was found of the cellular type. There was also a general non-septic cerebritis, most marked in the cortex and particularly in the motor area. There was degeneration of many of the ganglion cells in the cortex, apparently of recent origin, and of many of the fibers arising from the large pyramidal cell layer of the cortex. There was diffused degeneration of many of the fibers passing through both internal capsules, and limited to no particular portion of the capsule. There was inflammation of the tissues of the cerebellum, though to a much less degree than in the cerebrum. There was degeneration of many of the descending fibers of the pons and medulla. There was also degeneration of the chief descending tracts of the spinal cord and of some of the fibers in the ascending tracts. There were cytoplasmic changes in the ganglion cells of the anterior horns of the spinal cord. The examination showed the case to be one of organic and not functional disorder. It seemed safe to assume that the cause was not an infection, and the almost unavoidable conclusion was that the lesions were of toxic origin, possibly bacterial. The patient had been in the habit of taking headache powders, and it was possible that this was responsible for the cerebritis.

Dr. J. Arthur Booth said he had seen this girl a few hours after her admission to the hospital, and had also been present at the autopsy. She was deeply comatose, and there was absolutely no previous history. The pupils were moderately dilated, and they reacted to light. There was absolutely no response to pin-pricks except in the feet and hands. He had been unable to make a diagnosis. At the autopsy the brain appeared to him normal except that it was rather soft.

Dr. B. Sachs preferred to speak of this condition as a non-suppurative encephalitis. He had tried in a number of instances to recognize these cases and differentiate them from other cerebral conditions, particularly from apoplexy. However, he had found it extremely difficult to make the differential diagnosis. In children there was a special type in which the patient passed slowly into a state of unconsciousness, and remained in this state for some days or weeks, when consciousness was slowly regained. After this the most striking symptom was a persistent aphasia, though the general clinical picture was that of a cerebral hemiplegia.

Dr. W. M. Leszynsky said that he had had an opportunity of examining this girl about one week before her death. At that time her condition was similar to that described by Dr. Booth. He learned that the rise of temperature had been coincident with the progress of the extensive sloughing bedsore, and it was evident that the patient was then suffering from general sepsis. He was disposed to think that this condition of general sepsis must have had considerable influence upon the post-mortem findings. He recalled a case in which a woman had remained unconscious for three months, requiring to be fed by the stomach tube during this time. Her condition was supposed to be due to ovarian trouble, and as at that time the fashion was to remove the ovaries for slight cause, both of her ovaries were removed without much benefit. She regained consciousness after the operation, and described her condition during the unconscious state. She died shortly afterward, and the post-mortem findings failed to throw light upon the nature of the case.

Dr. Joseph Fraenkel said that the existence of non-purulent encephalitis had been proved in the monograph of Oppenheim. He would adopt Oppenheim's teaching with regard to these cases. The absence of the usual etiological factors, the presence of only very slight focal symptoms, and the presence of fever should lead one to think of the existence of non-purulent encephalitis.

Dr. Joseph Collins said that he was inclined to diagnosticate acute hemorrhagic non-purulent encephalitis rather frequently—indeed, it was rare for a week to pass without this diagnosis being made. It did not seem to him that there was very great difficulty in making the diagnosis. For instance, a child of two and one-half years had been seen at his clinic that day. A short time ago it had become dull, inactive and irritable, and somewhat feverish. On the second day there was a convulsion lasting three-quarters of an hour, most marked on the left side. After the child had remained stupid for ten or twelve days it gradually regained its normal activity. On examination, there was a condition of hemiparesis with normal mentality. This case seemed to him a very clear one of non-suppurative encephalitis. In the class of cases referred to by Dr. Sachs he had never seen any rise of temperature, nor was there that degree of recovery which seemed to him so essential to justify the diagnosis of non-purulent encephalitis. He thought it was about as frequent as pneumonia, and the analogue of it. He had very grave doubt about the case reported by Dr. Brooks being one of non-suppurative encephalitis. There must have been just as great changes in the spinal cord as in the brain, otherwise there would not have been such a rapid and extensive development of bedsores. It was possible that there was present some intoxication that had not been revealed by the investigation, and which might explain the symptoms and the cause of death in some other way. The clinical description seemed to point to encephalomyelitis.

Dr. R. H. Cunningham said that he had seen two somewhat similar cases. One of them was in Mount Sinai Hospital many years ago. The history was that the young woman after a disappointment in love had begun to be sleepy and stupid, and then became unconscious. Pin-pricks or faradic stimulation of the skin caused some response at first, but in a few days she became deeply comatose. The temperature was moderate for a few weeks, and then it suddenly rose and death soon ensued. The autopsy findings were negative. He had examined some sections of the brain and spinal cord, and had found leucocytes surrounding the blood vessels. The Weigert method showed absolutely no change. The diagnosis at that time was sub-acute cerebritis. In 1895 he had seen a similar case, occurring in a school girl. The symptoms and course were about the same, but death occurred in about two weeks. The autopsy findings here were also negative. The microscopical examination of the brain gave exactly the same results. These findings were certainly not characteristic of any one disease.

Dr. Brooks said that undoubtedly the patient became septic from the large bedsore, but this was so shortly before death that the autopsy did not show the changes which were ordinarily observed in the organs under such conditions. On admission, the patient had fever, and the bedsore did not develop for a week or ten days afterward. If there were a septic condition arising from the bedsore there would have been a general infection of the blood, and various micro-organisms would have been found in the blood, yet a very competent bacteriologist failed to find any such condition. All of the classical stages of inflammation were represented in the brain. He had made careful sections of the cord, but had been unable to find the inflammatory process which one would naturally look for as the cause of the bedsore.

Case of Myoclonus Multiplex of Friedreich.—Dr. J. Ramsey Hunt reported a case of this kind that he had seen in July, 1901, together with the autopsy findings. The man was forty-five years of age, a tailor by occupation, and a man of good habits. A few months before admission to Bellevue Hospital one knee had been operated upon for tuberculosis. The peculiar tonic contractions of the muscles began some months previously. There was a history of despondency from financial straits. The muscles of the arms and legs, and of the shoulder girdle showed very active twitchings. The whole muscle would bound forward as if by an electrical stimulation. No tetanic contraction was detected. The face muscles showed none of these contractions. The latter were most active when the patient was recumbent. The isolated contraction of individual muscles, such as the supinator longus and the sartorius, was the most noticeable feature. Sensation was undisturbed. The tendon and skin reflexes were very active. There were no stigmata of hysteria, and no evidences of mental impairment. A few weeks later he developed fever, and died apparently of general tuberculosis. The myoclonus persisted throughout the acute febrilic attack and for fifteen minutes or more after cardiac pulsations had ceased. A careful examination was made of the Rolandic and other areas of the cerebral cortex, of the spinal cord at different levels by all of the usual methods, but with negative results. The affected muscles showed an unusually marked hypertrophy. The transverse striations were normal. In some places a central position of the nucleus of the sarcolemma sheath was noted.

Case of Choreic Tic, with Remarks on the Classification of Myospasms.—Dr. Charles L. Dana read this paper. He said that apparently no case had been observed in England, Scotland or Ireland, whereas 14 cases had been reported in this country, and two other cases had been reported under a different name. After carefully reading the descriptions he had come to the conclusion that no case of paramyoclonus of Friedreich had been reported in this country, not even the case just reported by Dr. Hunt, although it came nearer to that type than the others. The speaker then reported a case of paramyoclonus like those that had been published by other American observers. The patient was a man of forty-two with a history of the mother having had similar attacks during the time she was pregnant with this son. The man said that he had been healthy until the age of eleven years, when he had been rendered unconscious by the kick of a horse. Shortly after this the first attack of myoclonus developed. The trouble continued with various remissions for the 23 years which had elapsed before coming under Dr. Dana's observation. When first seen he was nervous, anemic and badly nourished. There was no disorder of the sensory sphere. When the attacks came on he was seized with rhythmic movements of the head, and the hands and feet quivered. During the attack there was considerable palpitation of the heart; he perspired profusely and became exhausted. These contractions came on at very short intervals, and were apt to last for several days unless he took some narcotic, when the attack would cease. The patient had not been improved by any treatment he had employed, including hypnotism. A short time ago the patient reported that his general health was much better, and that the attacks were milder and less frequent. Myoclonus multiplex, Dr. Dana said, occurred also in connection with epilepsy. Mention was made of a case of myoclonus that had been under observation for a number of years. The attacks had developed after an operation on the thyroid gland following an abscess. The contractions were both clonic and tonic, and involved practically the whole musculature of the body. He looked upon the case as a mixture of chronic chorea and tic. Myoclonus occurred in association with epilepsy, chorea, tic and paresis; it also occurred in family forms. All three types of myoclonus were distinctly degenerative types of mobile spasm. There was another group of myoclonus multiplex which occurred in the form of recurrent spasmodic attacks, although sometimes the attacks were continuous. The trunk muscles and the proximal segments of the body were chiefly affected, and the contractions were very violent and of a rhythmic character. These cases had been called hysterical myoclonus, but in the cases he had seen there had been no distinct evidence of hysteria. Fright or shock was a common etiological factor; his own case was of the family type. The cases reported by American observers approached more closely to a disease entity than did the case of Friedreich. He was inclined to think that the case of Friedreich belonged more properly to the class designated as myokymia. There had been reported cases of paramyotonus which ran a course quite comparable with that of paramyoclonus.

Dr. B. Onuf said that it was difficult to determine from the clinical reports found in the literature whether the muscles were hypertrophied or atrophied, and the subject was still further confused by the variations in the muscle fibers resulting from the use of various hardening fluids.

Dr. L. Pierce Clark believed that Dr. Hunt's case was a typical one of myoclonus. It was very evident that others had not met with Friedreich's type. In some recent experiments the injection of carbolic acid into animals produced a condition of myoclonus multiplex. Recovery almost never took place in a well marked case. The fact that over half of the cases reported had been associated with some form of disease, especially cortical, would seem to place the disease as cortical and not muscular. The treatment that he had found the most valuable consisted in the alternate use of bromides and chloral, with venesection and hypodermoclysis or enteroclysis at the time of the attacks. In many respects the symptomatology of myoclonus simplex and that of status epilepticus were similar.

Dr. Hunt said that the examination of many supposedly healthy muscle fibers had failed to reveal any like those in his case, the fibers in the latter being almost double the size of normal ones. It was not mentioned as an essential, but as an interesting finding. In his opinion, the distinguishing feature of myoclonus of the Friedreich type was the occurrence of contractions of individual muscles not under the control of the will except in conjunction with other muscles in the performance of co-ordinated acts.

Dr. Dana said that it was evident that we were dealing with two very widely different diseases, one represented by the case reported by Dr. Hunt, and the other, the myoclonus epilepticus described by Dr. Clark, and characterized by very violent contractions and coordinate movements. Dr. Clark had shown that the myoclonus of epilepsy was distinctly a cortical disease.